

AMENDMENTS TO THE CLAIMS

1. (currently amended) A catalyst system for olefin polymerization comprising an organic transition metal compound ~~and, as, a cocatalyst, comprising~~ an ionic compound made up of anions of the formula (Ia),



where

the radicals R^1 are identical or different and are each, independently of one another, a radical $\text{R}^2\text{R}^3(\text{CF}_3)_2$, each $\text{C}(\text{CF}_3)_3$;

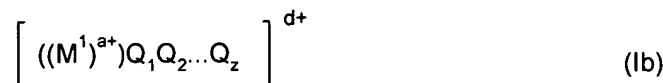
R^2 —is a carbon or silicon atom and

R^3 —is hydrogen, $\text{C}_1\text{-C}_{20}$ -alkyl, $\text{C}_1\text{-C}_{20}$ -fluoroalkyl, $\text{C}_6\text{-C}_{20}$ -aryl, $\text{C}_6\text{-C}_{20}$ -fluoroaryl, $\text{C}_7\text{-C}_{40}$ -arylalkyl, $\text{C}_7\text{-C}_{40}$ -fluoroarylalkyl, $\text{C}_7\text{-C}_{40}$ -alkylaryl, $\text{C}_7\text{-C}_{40}$ -fluoroalkylaryl or an SiR^4_3 -group, where

R^4 —may be identical or different and is each $\text{C}_1\text{-C}_{20}$ -alkyl, $\text{C}_1\text{-C}_{20}$ -fluoroalkyl, $\text{C}_6\text{-C}_{20}$ -aryl, $\text{C}_6\text{-C}_{20}$ -fluoroaryl, $\text{C}_7\text{-C}_{40}$ -arylalkyl, $\text{C}_7\text{-C}_{40}$ -fluoroarylalkyl, $\text{C}_7\text{-C}_{40}$ -alkylaryl or $\text{C}_7\text{-C}_{40}$ -fluoroalkylaryl,

and Lewis-acid cations or Brönsted acids as cations.

2. (currently amended) ~~A~~The catalyst system as claimed in claim 1, wherein the cocatalyst comprises, as Lewis-acid cations, cations of the formula (Ib),



where

M^1 is an element of groups 1 to 16 of the Periodic Table of the Elements,

Q₁ to Q_z are singly negatively charged groups ~~such as~~ comprising C₁-C₂₈-alkyl, C₆-C₁₅-aryl, alkylaryl, arylalkyl, haloalkyl, haloaryl each having from 6 to 20 carbon atoms in the aryl radical and from 1 to 28 carbon atoms in the alkyl radical, C₃-C₁₀-cycloalkyl which may bear C₁-C₁₀-alkyl groups as substituents, halogen, C₁-C₂₈-alkoxy, C₆-C₁₅-aryloxy, silyl or mercaptyl groups;

a is an integer from 1 to 6 ~~and~~;

z is an integer from 0 to 5; and

d corresponds to the difference a-z, but d is greater than or equal to 1.

3. (currently amended) ~~A~~The catalyst system as claimed in claim 1, wherein the cocatalyst comprises, as cations, Brönsted acids of the formula (Ic);



where

A is an element of group 15 of the Periodic Table of the Elements and

R⁵ may be identical or different and is each, independently of one another, C₁-C₂₀-alkyl, C₁-C₂₀-haloalkyl, C₁-C₁₀-alkoxyl C₆-C₂₀-aryl, C₆-C₂₀-haloaryl, C₆-C₂₀-aryloxy, C₇-C₄₀-arylalkyl, C₇-C₄₀-haloarylalkyl, C₇-C₄₀-alkylaryl or C₇-C₄₀-haloalkylaryl.

4. (canceled).
5. (currently amended) ~~A~~The catalyst system as claimed in ~~any of claims 1 to 4~~claim 1 which further comprises an organometallic compound.
6. (currently amended) ~~A~~The catalyst system as claimed in ~~any of claims 1 to 5~~claim 1 which further comprises an inorganic or organic support.
7. (currently amended) A process for preparing a catalyst system ~~as claimed in claim 6,~~
~~which comprises~~comprising:

an organic transition metal compound; a cocatalyst comprising an ionic compound made up of anions of the formula (Ia):



where the radicals R¹ are each C(CF₃)₃;

Lewis-acid cations or Brönsted acids as cations; and

an inorganic or organic support; the process comprising:

firstly bringing the support into contact with an organometallic compound and adding the organic transition metal compound and the cocatalyst to ~~the~~a reaction product.

8. (currently amended) A catalyst system for the polymerization of olefins comprising:

an organic transition metal compound; a cocatalyst comprising an ionic compound made up of anions of the formula (Ia):



where

the radicals R¹ are each C(CF₃)₃;

Lewis-acid cations or Brönsted acids as cations; and

an inorganic or organic support

which is ~~obtainable~~obtained as set forth in claim 7 by a process comprising firstly bringing the support into contact with an organometallic compound and adding the organic transition metal compound and the cocatalyst to a reaction product .

9. (currently amended) A process ~~for the polymerization of olefins~~comprising polymerizing olefins with ~~in which a catalyst system as set forth in any of claims 1 to 8 is used~~comprising:

an organic transition metal compound; a cocatalyst comprising an ionic compound made up of anions of the formula (Ia):



where the radicals R¹ are each C(CF₃)₃; and

Lewis-acid cations or Brönsted acids as cations.